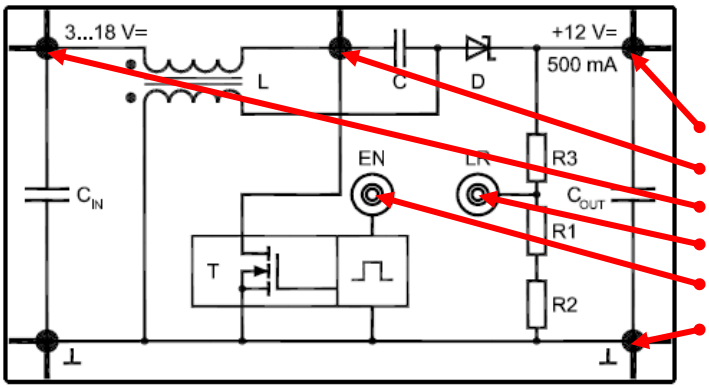
PHYSIK | CHEMIE BIOLOGIE | TECHNIK

LD DIDACTIC

10/14-W2010-Wei

Instruction Manual 578 796

Step-Up/down Converter, STE 6/50/100



(1) Output voltage
(2) Timing measuring point
(3) Positive supply voltage
(4) Voltage feedback measuring point
(5) "Enable" input
(6) Negative supply voltage

1 Description

The plug-in element is used with circuits built on the plug-in boards DIN A4 or DIN A3. This is a boost chopper/buck converter (DC/DC converter) such as what hybrid vehicles use, for example, to keep the battery charging voltage constant, independently of the generator voltage.

Safety notes

- Only operate the device with an appropriate power supply.
- Make sure all connections are correct.
- Pay attention to the maximum output current!

2 Technical Data

- Input voltage: U_{in} = 3 – 18 V=
- Maximum current: I_{max} = 750 mA
- Output voltage: U_{out} = 12 V=
- Input current: 1.3 A (at I_{out} = 750 mA and U_{in} = 9 V=)
- Switching frequency: 750 kHz

3 Startup

Link the ground connection **(6)** to the negative supply voltage and the voltage input **(3)** to the positive supply voltage.

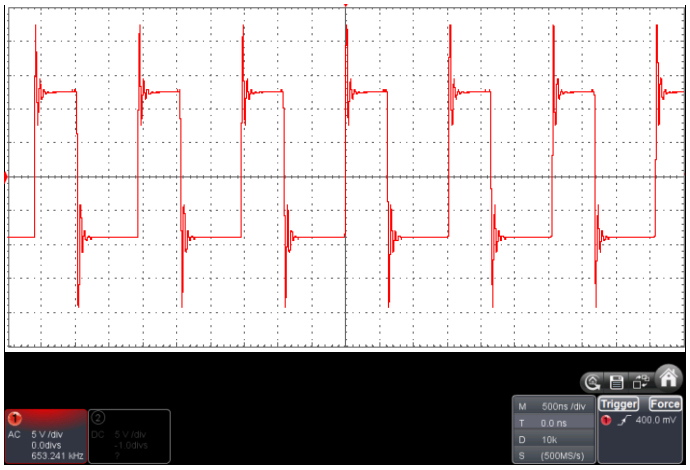
Set the supply voltage to 9 V= and switch it on.

Link the "*EN*" **(5)** socket on the top of the unit to the positive supply voltage **(3)** to enable operation.

You can now connect a load to the output **(1)**. Be careful not to exceed the maximum current of 750 mA!

At measuring point "*LR*" **(4)** you can measure the voltage, which serves as a feedback variable for regulation.

At measuring point **(2)** you can tap the connected voltage signal, which can look like the following wave, for example:



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